HERITAGE REMEDIATION/ENGINEERING, INC.

5656 Opportunity Drive
Toledo, OH 43612
Phone: 419/478-4396
FAX: 419/478-4560

April 30, 1992

Mr. Gary Sanderson
Case Manager, Bureau of ECRA
New Jersey Department of Environmental Protection and Energy
401 East State Street, 5th Floor
Trenton NJ 08625

Re: March 1992 Monthly Project Status Report
Former HEXCEL CORP. Site
205 Main Street, Lodi Borough
Bergen County, NJ
ECRA Case No. 86009
HR/E Project No. 60027

Dear Mr. Sanderson:

On behalf of HEXCEL CORPORATION, Heritage Remediation/Engineering, Inc. (HR/E) has prepared this monthly status report of remedial activities performed at the above reference site. This report is in partial fulfillment of paragraph 36 of the August 7, 1991 conditional approval letter requiring the submittal of a monthly status report and describes activities performed over the period from March 1, 1992 to April 1, 1992.

Should you have any questions or concerns regarding this report, please do not hesitate to call.

Respectfully,
Heritage Remediation/Engineering, Inc.

Robert R Beckwith

Robert R. Beckwith, CPG
Senior Hydrogeologist

Attachments

cc: A. William Nosil
Lisa Bromberg
Rob Powell
James Higdon
Essam Eldin E. Saleh
Joseph Ritchey

92RB2030.T1

MARCH 1992
MONTHLY PROJECT STATUS REPORT
FOR
FORMER HEXCEL INDUSTRIAL CHEMICALS FACILITY

Lodi Borough, Bergen County
Lodi, New Jersey

ECRA Case #86009

Submitted to:

New Jersey Department of Environmental Protection and Energy
401 East State Street, 5th Floor
Trenton, New Jersey 08625

Prepared by:

Heritage Remediation/Engineering, Inc.
5656 Opportunity Drive
Toledo, Ohio 43612

April 30, 1992

STATUS ON IMPLEMENTATION OF THE CLEAN-UP PLAN

A. SOILS

Pilot Soil Vapor Extraction

A proposal for a pilot soils cleanup plan has been delayed until completion of soils delineation sampling which will be implemented April 1992. A proposal will be prepared and submitted as part of the soils cleanup plan. We anticipate a submittal date of September 15, 1992.

B. GROUND WATER

Collection, Treatment, and Discharge of Basement Seepage Water

The air stripping towers and incinerator were operated in March 1992, treating and discharging 6,950 gallons of basement seepage water.

Upper Overburden Aquifer

No static water levels were collected in March 1992.

Lower Overburden Aquifer

No further work has been conducted.

Bedrock Aquifer

No additional work was performed in March 1992.

C. GROUND WATER TREATMENT SYSTEM OPERATION

During this period 6,950 gallons of basement seepage water was discharged to the PVSC (Appendix B).

D. DNAPL RECOVERY SYSTEM OPERATION

The DNAPL recovery system was operated for approximately 30 hours during March, 1992. During this time, only a limited amount of free DNAPL was recovered. Approximately 500 gallons of DNAPL-impacted water was collected for future on-site treatment. The following Table 1 includes DNAPL measurements obtained with an electronic interface probe on March 18, 1992:

TABLE 1
DNAPL THICKNESS SUMMARY

WELL	DATE	DEPTH TO DNAPL (ft. below TOC)	DNAPL THICKNESS (ft.)	COMMENT
RW7-1	8-28-90	—	≈ 5	bailed
	6-7-91	—	—	pump
	10-15-91	—	—	pump
	3-18-92	—	none in discharge	pump
RW7-2	8-28-90	—	trace	bailed
	6-7-91	—	ND	—
	3-18-92	—	ND	—
RW7-3	8-28-90	—	trace	bailed
	6-7-91	—	trace	—
	10-28-91	—	ND	—
	3-18-92	—	ND	—
RW7-4	8-28-90	—	≈ 4	bailed
	6-7-91	16.01	2.50	—
	8-6-91	17.28	0.73	—
	10-15-91	17.56	0.95	—
	10-21-91	17.76	0.75	after DNAPL removal
	3-18-92	18.67	0.33	—
RW7-5	9-25-91	15.18	4.17	Recovery system
	9-26-91	15.45	3.90	pilot test on RW7-5
	9-27-91	15.62	3.73	
	9-28-91	15.78	3.57	
	10-3-91	15.95	3.40	
	10-10-91	16.00	3.35	
	3-18-92	—	none in discharge	
MW-6	6-7-91	18.36	0.20	—
	8-6-91	17.36	1.20	—
	10-15-91	17.33	1.23	—
	10-21-91	18.18	0.38	after DNAPL removal
	3-18-92	17.16	1.44	—
MW-8	6-7-91	16.74	0.50	—
	8-6-91	15.66	1.58	—
	10-15-91	15.68	1.56	—
	10-21-91	16.75	0.49	after DNAPL removal
	3-18-92	16.55	0.65	—

Wells RW7-1 and RW7-5 were not measured because of the recovery pumps in the wells prohibited passage of the interface probe, but it is suspected both wells do not have a measurable DNAPL thickness, since none were observed during several hours of system operation and inspection.

E. LNAPL RECOVERY SYSTEM OPERATION

The LNAPL recovery system was not operated during March, 1992. No LNAPLs were observed in RW15-1, RW15-2, RW-1, and P-2. Only a trace of LNAPLs were observed in P-1, and CW-7. As reported in the October 1991 Status Report, approximately 0.25

gallons were recovered from CW-7. No LNAPLs have been recovered since October 1991. A LNAPL monitoring proposal (part of Work Order #48) is included in Appendix C.

LNAPL recovery from underneath the Boiler Room will be delayed until the ground-water depression pumps that are part of the LNAPL recovery system can be turned on.

F. STATUS OF PERMITS

Air Control Apparatus

The current operating permit expires on June 5, 1992.

SIU Permit

The final permit is anticipated to be issued in April, 1992.

PVSC Discharge Permit

The PVSC has given approval for continued treatment and discharge of basement seepage water. A copy of the April 20, 1992 letter from the PVSC is included in Appendix A of this report. An application for a discharge permit separate from the existing Fine Organics discharge permit is being processed.

NJPDES Discharge to Ground Water Permit

No activity occurred during this time period.

NJPDES Discharge to Surface Water Permit

No activity occurred during this time period.

G. ALTERNATE DISCHARGE SOURCE

During this time period, HR/E completed preparation of a Preliminary Feasibility Study report. Three copies of this report were submitted to the NJDEPE on March 17, 1992.

H. SCHEDULE UPDATE

The attached schedule (Table 2) summarizes the projected timetable for the current period.

I. NJDEPE LETTERS DATED DECEMBER 23, 1991 AND MARCH 5, 1992

The following section summarizes NJDEPE requirements for completed work and additional work at the former Hexcel facility.

NJDEPE Letter dated December 23, 1991

Section A - Ground Water

Addressed in March 5, 1992 NJDEPE letter

Section B - Soils

Item 1a. Isoconcentration map - Not required per NJDEPE letter dated January 30, 1992.

Item 1b. Soil delineation sampling is addressed in HR/E Work Order #46.1 (attached in Appendix D). Soil borings will be advanced during the week of April 20, 1992 to fulfill this requirement. Results will be submitted in the April Status Report, due about May 15, 1992.

i. Boring 507 & MW-35 - Hexcel proposal dated August 9, 1991, accepted by NJDEPE with conditions. Conditions accepted by Hexcel.

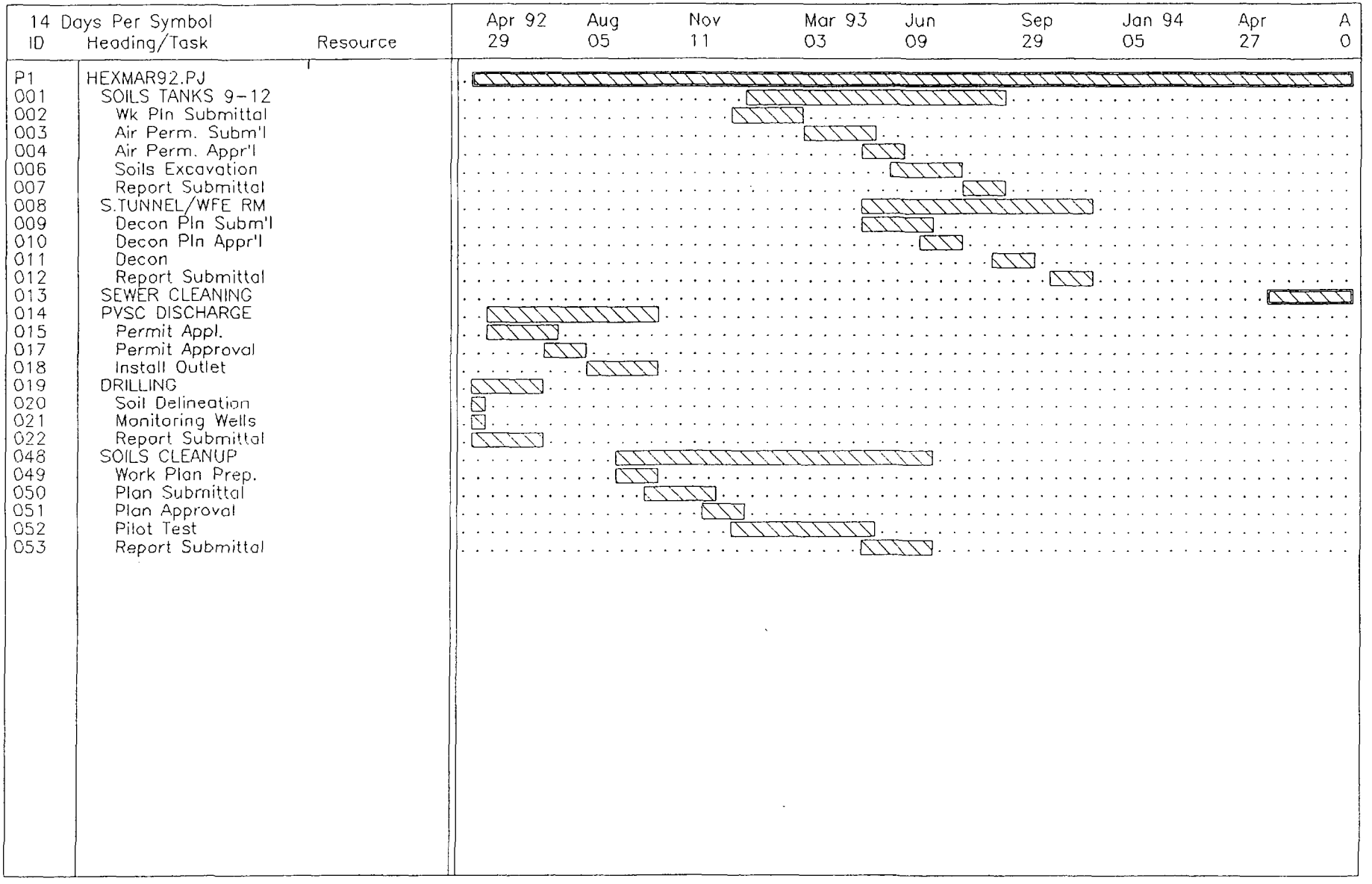
ii. Boring 113 & 114 - Hexcel proposal dated August 9, 1991, accepted by NJDEPE with conditions. Conditions accepted by Hexcel.

iii. Boring 508 - Hexcel proposal dated August 9, 1991, accepted by NJDEPE with conditions. Conditions accepted by Hexcel.

TABLE 2
UPDATED SCHEDULE OF ACTIVITIES

Task Gantt

Project: HEXMAR92.PJ
04-16-92



iv. Boring 613 - Hexcel proposal dated August 9, 1991, accepted by NJDEPE with conditions. Conditions accepted by Hexcel.

v. Boring 614 - Hexcel proposal dated August 9, 1991, accepted by NJDEPE with conditions. Conditions accepted by Hexcel.

Item 2. Notification to NJDEPE two weeks before implementation of remedial activities - Agreed without submittal to NJDEPE.

Item 3. Reporting requirements for delineation sampling

a. Request for a narrative on sampling activities - This narrative will be included in the April status report to be submitted on about May 15, 1992 after the soil delineation field work has been accomplished, pursuant to the extension granted in the March 15, 1992 letter of the NJDEPE.

b. Request for an isoconcentration map of soils - Explanation presented in Item 1a.

c. Request for detailed boring logs for borings and monitoring wells HR/E will prepare a response for inclusion in the April monthly status report to be submitted on about May 15, 1992.

d. Request for a summary of all field PID readings - HR/E will prepare a response for inclusion in the April monthly status report to be submitted on about May 15, 1992.

e. Request for a summary of analytical results be provided in a tabular form - HR/E will prepare a response for inclusion in the April monthly status report to be submitted on about May 15, 1992.

f. Request for Tier II laboratory deliverables for all samples - An explanation was submitted in the December monthly status report dated January 14, 1992 and accepted in the NJDEPE letter item 9 dated March 5, 1992, whereas Tier II analyses will be conducted on delineation sampling.

Section C - Tank Closure Report (August 27, 1991)

Item 1. Fuel Oil USTs East of Boiler Room

a. Request for additional sampling - Addressed in December monthly status report dated January 14, 1992. Sampling eliminated in the NJDEPE letter of March 5, 1992.

b. Request for a soil remediation proposal for the area - HR/E will prepare a response for inclusion in the April monthly status report to be submitted on about May 15, 1992.

c. Request for clarification of soil sampling - Addressed in December monthly status report dated January 14, 1992. Sampling procedures accepted in the NJDEPE letter of March 5, 1992.

d. Request for clarification of vent line removal - Addressed in December monthly status report dated January 14, 1992. Clarification was accepted in the NJDEPE letter of March 5, 1992. During a February site activity, HR/E personnel removed the remaining portions of the vent lines from near the boiler room.

Item 2. Gasoline USTs Northeast of Building 6

a. Request for clarification of soil sampling - Addressed in December monthly status report dated January 14, 1992. Sampling procedures accepted in the NJDEPE letter of March 5, 1992.

b. Request for a soil remediation proposal for the area - No response has been prepared or submitted. HR/E will prepare a response for inclusion in the April monthly status report to be submitted on about May 15, 1992.

Item 3. QA/QC Data - Comments on review of data submittals - HR/E agrees to utilize the ECRA Data Deliverable checklist to ensure the proper presentation and formatting of data.

Section D - Progress Report dated August 21, 1991

Comments regarding testing of PCB destruction by quicklime - Addressed in December monthly status report submitted January 14, 1992.

Section E - Investigation of PCB contamination in Wiper Film Evaporator (mistakenly referred as the Drying Room) (Progress Report dated October 27, 1991)

a. Request for clarification of analytical procedure - Addressed in December monthly status report submitted January 14, 1992 and accepted in the NJDEPE letter of March 5, 1992 (III 5.).

b. Request for clarification of wipe and chip sampling - Addressed in December monthly status report submitted January 14, 1992 and accepted in the NJDEPE letter of March 5, 1992 (III 6.).

c. Request for clarification of PCB sampling locations - Addressed in December monthly status report submitted January 14, 1992, additional response is presented in the NJDEPE letter dated March 5, 1992 (III 7.).

d. Request for clarification of acid preparation of PCB samples - Addressed in December monthly status report submitted January 14, 1992, additional request is presented in the NJDEPE letter dated March 5, 1992 (III 8.).

NJDEPE Letter dated March 5, 1992

Section I - Ground Water

Item 1. Ground-Water Recovery System

Request for proposal to evaluate the ground-water recovery system - HR/E has prepared a proposal (Work Order #48 included in Appendix C) to prepare a ground-water monitoring plan that will allow evaluation of the recovery system.

Item 2. Off-Site Receptors

Request for the status of the Off-site receptor investigation - ENVIRON will review the August 9, 1991 letter for preparation of a separate submittal to the NJDEPE.

Item 3. Off-Site Monitor Wells (also see item 14)

Request for a proposal to delineate contamination and geology in the eastern portion of the site (with an off-site monitor well) - HR/E has included this proposal in its Work Order #41.1 (included in Appendix E).

Item 4. Monitor Well MW-7

The proposal as submitted in the Hexcel letter of August 9, 1991 is acceptable to the NJDEPE according to the March 5, 1992 letter. The proposed work of sampling and potentially closing MW-7 and MW-9 due to DNAPLs is presented in HR/E Work Order #46.1 (see Appendix D).

Item 5. Light Non Aqueous Phase Liquid (LNAPL)

Request for LNAPL recovery proposal for CW-7, recovery from Boiler Room wells, and implementation of a LNAPL monitoring program (see Section 3.0, paragraph E). HR/E has provided a proposal (part of Work Order #48, see Appendix C) for an LNAPL monitoring plan and possible LNAPL recovery. The plan will address which wells are to be measured by Essam Saleh (on-site treatment system operator), and how frequently measurements are to be made.

Item 6. Additional DNAPL Delineation Wells

Eliminates requirement for the installation of an additional well south/southeast of RW 7-8.

Request to implement a monthly DNAPL monitoring program at the site - HR/E has provided a proposal (part of Work Order #48, Appendix C) for a DNAPL monitoring plan. The plan will address which wells are to be measured by Essam Saleh, and how frequently measurements are to be made, and how frequently DNAPLs will be recovered.

Item 7. Ground-water Contour Maps

NJDEPE approves of Hexcel's proposal (August 9, 1991 letter) to collect ground-water elevations and submit contour maps on a quarterly basis - HR/E has provided a proposal (part of Work Order #48) for a ground-water level monitoring plan attached as Appendix C. Essam Saleh will collect data periodically for construction of water table contour maps.

Item 8. Isopleth maps

NJDEPE approved Hexcel's proposal (August 9, 1991 letter) to prepare isopleth maps for the shallow overburden aquifer. ENVIRON prepared and submitted isopleth maps of compounds for the shallow overburden aquifer in the August 1991 status report. Isopleth maps for the lower overburden aquifer are included in this March 1992 status report in the attached plate holders.

Item 9. Geologic cross-sections

NJDEPE accepts the cross sections submitted in the July and August 1991 progress reports.

Item 10. Lower overburden/bedrock aquifers

NJDEPE approves of the proposal to address the lower overburden aquifers and bedrock aquifer. This work was performed and presented in a report dated April 8, 1992. The report is being submitted along with the April 1992 progress report.

Item 11. On-site production well

Request to complete the packer test - HR/E Work Order #41.1 (see Appendix E) addresses this activity.

Item 12. Fate of treated ground water

Request for status of negotiations with Fine Organics and the PVSC regarding disposal of treated ground water - HR/E submitted two copies of the Preliminary Feasibility Study for Alternate Discharges to the PVSC for their review (dated March 16, 1992).

Item 13. Monitor well table

NJDEPE accepted the revised monitor well specification table.

Item 14. Off-site monitor wells

NJDEPE has eliminated their previous request for an off-site monitor well at the intersection of Molnar and Main Street.

Section II - Technical meeting (labeled as Section III in NJDEPE letter dated March 5, 1992)

A technical meeting was held in Trenton, New Jersey on March 17, 1992. Personnel from NJDEPE, Hexcel, HR/E, and Fine Organics were in attendance.

Item 1. Extent of DNAPL plume in the area of MW-8 and the possible discharge of DNAPLs into the Saddle River.

HR/E measured the thickness of the DNAPL in MW-8 on March 18, 1992, which indicated a thickness of 0.65 foot. The extent of the DNAPL plume in the area of MW-8 and efforts to recover DNAPLs in this well, and other wells is addressed in a DNAPL Monitoring Plan proposal (Work Order #48, Appendix C).

Information provided in the March 16, 1991 report, "Alternate Discharge of Groundwater Pretreatment System", indicates the Saddle River may be a loosing stream.

Item 2. Request to consider DNAPL recovery from RW7-4. HR/E will include in the DNAPL Monitoring Plan periodic recovery by manual methods (Work Order #48, Appendix C).

Item 3. Request to discuss the possible presence of DNAPLs in MW-17 and CW-5.

Our position is that if a DNAPL layer was present at the location, it would have been identified during sampling or during pilot production testing. To the contrary, well CW-5 indicates phase separation to a LNAPL layer over time.

Item 4. Request to discuss the presence of DNAPLs in MW-27 and its relationship to DNAPLs found in other site wells.

Our position is that DNAPLs, if present at the location, would migrate towards the DNAPL recovery wells located between MW-27 and the Saddle River. A proposal to conduct a 500 gallon pumping test of MW-27 for evaluation of the presence of DNAPLs and the potential for recovery of DNAPLs and ground water (Work Order #41.1) is included as Appendix E.

Item 5. Request for further delineation of dissolved phase VOC contamination in the upper overburden aquifer.

A VOC delineation proposal is attached as Work Order #41.1 in Appendix E. The proposal includes sampling CW-1, CW-2, and CW-10, and installation and sampling monitoring wells MW-35, MW-36 and MW-37 (Work Order #41.1). HR/E will pursue identifying a gross test for "order of magnitude" contamination.

Item 6. Request for status of delineation of contamination in the lower aquifer.

The status for delineation of contamination is addressed in Section I items 8, 10 and 13.

Item 7. Request development of a cleanup plan amendment to address the lower aquifer contamination.

An amendment to the cleanup plan will be considered following completion of Section II item 6 above.

Item 8. Investigation of contamination in the bedrock aquifer.

Investigation of contamination in the bedrock aquifer will be addressed following completion of Section I items 10 and 11 above.

Section III - Soils

Review of the December, 1991 progress report dated January 14, 1992.

Item 1. Fuel oil underground storage tanks east of Boiler Room

Eliminates need for additional soils delineation in this area, incorporates this area into the site wide soils remediation proposal, and requests the status of the soil remediation proposal.

Our position is that ground water depression and potentially LNAPL recovery will be initiated in the UST tank cavity following receipt of the SIU permit.

Item 2. Fuel oil UST post-excavation samples.
NJDEPE accepted description in a previous submittal.

Item 3. UST vent lines/pipes.
NJDEPE accepted response in a previous submittal.

Item 4. Gasoline UST northeast of Building 6

HR/E will prepare a response regarding assessment of soils contamination in this area for inclusion in the April progress report due on about May 15, 1992.

Item 5. Polychlorinated biphenyl analytical methods

NJDEPE accepted response in a previous submittal.

Item 6. Sampling clarification

NJDEPE accepted response in a previous submittal.

Item 7. Drying Room (WFE Room) Hot Oil Equipment

HR/E will present a narrative and rationale for equipment and sampling locations in the April status report.

Item 8. Acid cleaning of PCB samples

NJDEPE accepted response in a previous submittal.

Item 9. Presentation of data

All further sampling data meant to demonstrate "clean zones" will be supported by Reduced Regulatory Format (formerly ECRA Tier II) laboratory deliverables.

Section IV - Extension Request

NJDEPE accepted Hexcel's request of February 4, 1992 to extend the schedule for completing soils delineation until after ground-water issues are resolved. Soils delineation sampling shall be initiated within 60 calendar days of March 5, 1992 letter. HR/E has prepared a proposal (Work Order #46.1, Appendix D). This work will be performed during the week of April 20, 1992.

Section V - Reduction in Financial Assurance

No response required.

APPENDIX A

April 20, 1992 PVSC Letter

Approval for Treatment and Discharge of Basement Seepage Water

60027 5.5.3

Passaic Valley
Sewerage Commissioners

600 WILSON AVENUE
NEWARK, N.J. 07105
(201) 344-1800
Fax: (201) 344-2951

April 20, 1992

Mr. Gary Sanderson, Case Manager
Bureau of ECRA
Department of Environmental Protection & Energy
401 East State Street
5th Floor
Trenton, New Jersey 08625

RE: DISCHARGE OF PRETREATMENT SYSTEM
FORMER HEXCEL CORPORATION SITE
205 MAIN STREET, LODI, BOROUGH
BERGEN COUNTY
ECRA CASE #86009

Dear Mr. Sanderson:

This letter is prepared, at the request of Hexcel Corporation, to provide you with some record of ongoing discussions between Hexcel and the PVSC regarding short and long term disposal of water derived from the ECRA site cleanup. Most recently , we had a meeting with Mr. A. William Nosil of Hexcel and Mr. Joe Ritchey of Heritage on Wednesday, March 18, 1992. At that time they provided us with two copies of a report titled "Alternate Discharge of Groundwater Pretreatment System - Preliminary Feasibility Study" dated March 16, 1992. Though we have not had sufficient time to thoroughly review this document, we can comment on some general conclusions regarding discharge alternatives.

Hexcel has been making reasonable progress towards finding a suitable long-term means of discharge for the water. It appears at this time that there are no "good " alternatives other than discharging the water to the PVSC. PVSC would accept this pretreated wastewater if no other reasonable alternative exists, provided Hexcel complies with the PVSC Rules and Regulations.

Regarding short term discharge, PVSC will continue to accept the discharge of treated basement sepage and the preliminary treatment facility testing to be used for the long term discharge in accordance with Fine Organics previous verbal approvals. However, if PVSC determines that the long term discharge will be accepted it will be Hexcel's responsibility to have their own PVSC permit in place. This will include the installation of a separate sewer line which can be isolated from the Fine Organics discharge.

It is also important to note during the extended period of temporary discharge PVSC expects that this project will be finalized. The target date of November 30, 1992 will be reflected in a review to Fine Organics Permit #17405042

Very truly yours,

PASSAIC VALLEY SEWERAGE COMMISSIONERS

Frank P. D'Ascenzio
Manager of Industrial & Pollution Control

FPD/mc

cc: Carmine T. Perrapato, Executive Director
Robert Davenport, Deputy Executive Director
A.William Nosil, Hexcel
Joe Ritchey, Heritage
Lisa Bromberg, Porzio, Bromberg & Newman
Jim Higdon, Fine Organics
M. Naughton, Kummer & Naughton

APPENDIX B

Hexcel Contribution to Fine Organics Corporation Industrial User Discharge Report

USER CHARGE SELF MONITORING REPORT

NAME: Fine Organics Corporation

ADDRESS: 205 Main Street, Lodi, NJ 07644

FACILITY LOCATION:

OUTLET DESIGNATION (17 DIGITS): 17405041-37430-0171 Outlet # Industrial Sewer

MONITORING PERIOD					
03	01	92	03	31	92
MO	DAY	YEAR	MO	DAY	YEAR
START			END		

Vol Discharged This Period
6,950 GALS
CU.FT X 7.48 = Gallons
Effluent Meter Reading Last Day This Period

DATE	BOD 0310 (mg/ℓ)	TSS 0530 (mg/ℓ)	pH	COD	µg/ℓ PCB	Station Location	Lab Sample #	Gal.
03/10	209.7	33	8.78	500	--	Final H-2	S-2890	3,000
					ND	Final H-1	S-2902	-
					--	Discharge Hose	S-2910	-
03/23	57.25	12	8.07	750	--	Final H-1	S-2924	3,950
					ND	Final H-1	S-2924	-
					--	Discharge Hose	S-2925	-

ND indicates less than 0.5 µg/ℓ

SIGNATURE OF PRINCIPAL OR AUTHORIZED AGENT	TYPE NAME AND TITLE	TELEPHONE NO.
Joseph D. Ritchey	Joseph D. Ritchey	800-338-4396
	Engineering Manager	
		DATE 4/15/92

PVSC FORM MR-2 REV. 2
1/86

92JR2032.T1

884140023

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

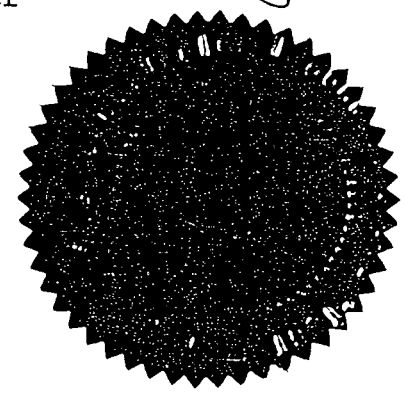
Client Name: Heritage Rem/Engineer. Date: March 4, 1992
Laboratory Project #: S-2890
Reference: Hexel, Final Tank Effluent H-2
Location: Lodi, New Jersey

LABORATORY AUTHENTICATION STATEMENT

I certify that ALL-TEST ENVIRONMENTAL LABORATORIES meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846.

By:

Irving Berkowitz
Laboratory Manager



CERTIFIED BY NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, LAB. #02525

884140024

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

March 4, 1992

Mr. Joe Ritchey
Heritage Remediation/Engineering, Inc.
Toledo Division
5656 Opportunity Drive
Toledo, Ohio 43612

Re: Project No. 61012

Lab Project No. S-2890

Please note the following results for the One (1) Aqueous sample received on 2/28/92. All results are reported in mg/l (ppm) except for Ph.

Analysis ID	Final Tank Effluent Water H-2
BOD	209.7
COD	500
T.S.S.	33.0
Ph	8.780

By:

Irving Berkowitz
Laboratory Manager

S-2896

HERITAGE

CHAIN OF CUSTODY RECORD

HERITAGE REMEDIATION/ENGINEERING, IN

Toledo Division • 5656 Opportunity Drive • Toledo,

PROJ. NO.	PROJECT NAME
60012	HEXCEL

SAMPLERS: (Signature)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC	SEMI	PCB	TSS	LOD%	PH	REMARKS
1	3/3/92	1400		✓	TANK H1 - FINAL			✓					RUSH 24hr's
2	3/3/92	1400		✓	TANK H1 - FINAL			✓					
3	3/3/92	1130		✓	CARBON EFFLUENT			✓					
4	3/3/92	1130		✓	CARBON EFFLUENT			✓					

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
ESAM E SALEH	3/3/92 3:15	J. Mandeville 3/3/92			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

884140026

S-1701

HERITAGE

CHAIN OF CUSTODY RECORD

HERITAGE REMEDIATION/ENGINEERING, I.

Toledo Division • 5656 Opportunity Drive • Toledo,

PROJ. NO.	PROJECT NAME
61012 600	HEXCEL

SAMPLERS: (Signature) ESAM E SAKEH

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PCB						REMARKS
1	3/6/92	1630		✓	FINAL TANK H1		✓						
2	3/6/92	1630		✓	FINAL TANK H1		✓						
3	3/6/92	1630		✓	~~EB~~ CARBON CELL NO 1 Effluent		✓						
4	3/6/92	1630		✓	CARBON CELL NO 1 Effluent		✓						

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
E-E-S-	3/6/92 1710	Paul Simone			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

884140027

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Client Name: Heritage Rem/Engineer.Date: March 9, 1992
Laboratory Project #: S-2902
Reference: Hexel
Location: Lodi, New Jersey

LABORATORY AUTHENTICATION STATEMENT

I certify that ALL-TEST ENVIRONMENTAL LABORATORIES meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846.

By:

Irving Berkowitz
Laboratory Manager

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Method 608 (PCB's)

Project No. 61012
Laboratory Project No. S-2902
Client Name: Heritage Remediation

Matrix: Water
Date Received: 3/06/92
Date Analyzed 3/09/92

Sample Location	Carbon Cell No. 1 Sample #3	MDL ug/l
PCB-1016	ND	0.50
PCB-1221	ND	0.50
PCB 1232	ND	0.50
PCB-1242	ND	0.50
PCB-1248	ND	0.50
PCB-1254	ND	0.50
PCB-1260	ND	0.50

Sample Location	Carbon Cell No. 1 Sample #4	MDL ug/l
PCB-1016	ND	0.50
PCB-1221	ND	0.50
PCB 1232	ND	0.50
PCB-1242	ND	0.50
PCB-1248	ND	0.50
PCB-1254	ND	0.50
PCB-1260	ND	0.50

By: Irving Berkowitz
Irving Berkowitz
Laboratory Manager

MDL = Method Detection Limit
ND = Non Detected

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Method 608 (PCB's)

Project No. 61012
Laboratory Project No. S-2902
Client Name: Heritage Remediation

Matrix: Water
Date Received: 3/06/92
Date Analyzed 3/09/92

Sample Location	Final Tank H-1 Sample #1	MDL ug/l
PCB-1016	ND	0.50
PCB-1221	ND	0.50
PCB 1232	ND	0.50
PCB-1242	ND	0.50
PCB-1248	ND	0.50
PCB-1254	ND	0.50
PCB-1260	ND	0.50

Sample Location	Final Tank H-1 Sample #2	MDL ug/l
PCB-1016	ND	0.50
PCB-1221	ND	0.50
PCB 1232	ND	0.50
PCB-1242	ND	0.50
PCB-1248	ND	0.50
PCB-1254	ND	0.50
PCB-1260	ND	0.50

By: Irving Berkowitz
Laboratory Manager

MDL = Method Detection Limit
ND = Non Detected

S-2910

HERITAGE

CHAIN OF CUSTODY RECORD

HERITAGE REMEDIATION/ENGINEERING, IN

Toledo Division • 5656 Opportunity Drive • Toledo, C

PROJ. NO.	PROJECT NAME
610002	HEXCEL

SAMPLERS: (Signature) ESSAM E SALEH

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOCs	REMARKS
1	3/10/92	1035		✓	END of DISCHARGE HOSE		✓	
2	3/10/92	1045		✓	END of DISCHARGE HOSE		✓	
3								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
ESSAM E SALEH	3/10/92 11:45	Paul V. Barone			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

88414003 1

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.

60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Client Name: Heritage Rem./Eng. Date: March 17, 1992
Laboratory Project #: S-2910
Reference: Hexcel
Proj. No: 61012

LABORATORY AUTHENTICATION STATEMENT

I certify that ALL-TEST ENVIRONMENTAL LABORATORIES meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846.

By:

Irving Berkowitz
Laboratory Manager

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

NON-CONFORMENCE SUMMARY

All-Test Environmental Laboratories received the samples of Project # S-2910 on March 17, 1992. All samples were assigned individual sample Identification names and were logged in to be analyzed for Volatile Organic Compounds in water. After receipt and log in the samples were refrigerated and kept under refrigeration until being analyzed or extracted by the laboratory.

All extractions were performed within the required holding time.

All analysis were performed within the required holding time.

All Surrogates were within recommended Limits.

By:

Irving Berkowitz
Laboratory Manager

HERITAGE REMEDIATION/ENGINEERING, INC.

5656 Opportunity Drive
Toledo, OH 43612
Phone: 419/478-4396
FAX: 419/478-4560

April 15, 1992

Mr. Jim Higdon
FINE ORGANICS CORPORATION
205 Main St.
P.O. Box 687
Lodi, NJ 07644

Re: 1992 March Hexcel contribution to Fine Organics Corporation Industrial User Discharge Report MR-2 form.
HR/E Project No. 60027/8.3

Dear Jim:

Attached is the MR-2 form presenting analytical data for the batch discharge of treated basement seepage water. Since we have not begun continuous treatment and discharge, we have not begun collecting all of the information requested as part of the current permit.

If you have any questions, do not hesitate to contact us.

Sincerely yours,
Heritage Remediation/Engineering, Inc.

Joseph D. Ritchey, P.E.
Engineering Manager

JDR:djs

Attachments

cc: A. William Nosil

92JR2032.T1

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Volatile Organic Analysis Data

Case Id. Hexcel #61012 Matrix: Water
Sample No. S-2910 1 Dilution Factor: 2:1
Client Name: Heritage Rem./Eng. Date Analyzed: 3/10/92

COMPOUND	UG/L	MDL
Chloromethane	ND	20
Vinyl Chloride	ND	20
Bromomethane	ND	20
Chloroethane	ND	20
Trichlorofluromethane	ND	10
1,1-Dichloroethene	ND	10
Methylene Chloride	47.3	10
Trans-1,2 Dichloroethene	ND	10
1,1 Dichloroethane	ND	10
Chloroform	3J	10
1,1,1-Trichloroethane	7J	10
Carbon Tetrachloride	ND	10
Benzene	2J	10
1,2-Dichloroethane	ND	10
Trichloroethene	18.0	10
1,2-Dichloroprapane	ND	10
Bromodichloromethane	ND	10
Trans-1,3-Dichloropropene	ND	10
Toluene	16.5	10
Cis-1,3-Dichloropropene	ND	10
1,1,2-Trichloroethane	3J	10
2-Chloroethyl Vinyl Ether	3J **	10
Tetrachloroethene	167.8	10
Dibromochloromethane	ND	10
Chlorobenzene	223.5	10
Ethylbenzene	2J	10
m&o Xylenes	6J	20
p Xylene	3J	20
Bromoform	ND	10
1,1,2,2-Tetrachloroethane	ND	10

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Volatile Organic Analysis Data

Case Id. Hexcel #61012
Sample No. S-2910 1
Client Name: Heritage Rem./Eng.

Matrix: Water
Dilution Factor: 2:1
Date Analyzed: 3/10/92

COMPOUND	UG/L	MDL
1,3-Dichlorobenzene	22.5	20
1,2-Dichlorobenzene	49.1	20
1,4-Dichlorobenzene	174.6	20

ND = None Detected
MDL = Method Detection Limit
BMDL = Below Method Detection Limit
** = Compound Found In Laboratory Blank

SURROGATE COMPOUNDS	RECOVERY	LIMITS
1,2-Dichloroethane-d4	97%	70-121
Toluene-d8	111%	81-117
4-Bromofluorobenzene	105%	74-121

By: Irving Berkowitz
Laboratory Manager

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Volatile Organic Analysis Data

Case Id. Hexcel #61012
Sample No. S-2910 2
Client Name: Heritage Rem./Eng.

Matrix: Water
Dilution Factor: 2:1
Date Analyzed: 3/10/92

COMPOUND	UG/L	MDL
Chloromethane	ND	20
Vinyl Chloride	ND	20
Bromomethane	ND	20
Chloroethane	ND	20
Trichlorofluromethane	ND	10
1,1-Dichloroethene	ND	10
Methylene Chloride	46.9	10
Trans-1,2 Dichloroethene	ND	10
1,1 Dichloroethane	ND	10
Chloroform	3J	10
1,1,1-Trichloroethane	7J	10
Carbon Tetrachloride	ND	10
Benzene	2J	10
1,2-Dichloroethane	4J	10
Trichloroethene	19.6	10
1,2-Dichloroprapane	ND	10
Bromodichloromethane	ND	10
Trans-1,3-Dichloropropene	ND	10
Toluene	17.2	10
Cis-1,3-Dichloropropene	ND	10
1,1,2-Trichloroethane	3J	10
2-Chloroethyl Vinyl Ether	3J **	10
Tetrachloroethene	178.0	10
Dibromochloromethane	ND	10
Chlorobenzene	225.5	10
Ethylbenzene	ND	10
m&o Xylenes	4J	20
p Xylene	2J	20
Bromoform	ND	10
1,1,2,2-Tetrachloroethane	ND	10

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Volatile Organic Analysis Data

Case Id. Hexcel #61012
Sample No. S-2910 2
Client Name: Heritage Rem./Eng.

Matrix: Water
Dilution Factor: 2:1
Date Analyzed: 3/10/92

COMPOUND	UG/L	MDL
1,3-Dichlorobenzene	21.4	20
1,2-Dichlorobenzene	47.0	20
1,4-Dichlorobenzene	170.9	20

ND = None Detected
MDL = Method Detection Limit
BMDL = Below Method Detection Limit
** = Compound Found In Laboratory Blank

SURROGATE COMPOUNDS	RECOVERY	LIMITS
1,2-Dichloroethane-d4	96%	70-121
Toluene-d8	112%	81-117
4-Bromofluorobenzene	105%	74-121

By: _____
Irving Berkowitz
Laboratory Manager

S-2924

HERITAGE

CHAIN OF CUSTODY RECORD

HERITAGE REMEDIATION/ENGINEERING, IN

Toledo Division • 5656 Opportunity Drive • Toledo,

PROJ. NO.	PROJECT NAME
61012 600	HEXCEL

SAMPLERS: (Signature)
ESSAM E SALEH

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	BOD's	COD's	T.S.S.	PH	PCB's		REMARKS
	3/20/92			X	FINAL TANK H1	2 QTs	X	X	X	X	X		RUSH PCB's
													STANDARD ON OTHERS

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
ESSAM E SALEH	3/20/92 4:44 PM	SUE Manderano			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

884140039

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Client Name: Heritage Rem/Eng. Date: March 27, 1992
Laboratory Project #: S-2924
Reference: Hexcel
Project No. - 61012

LABORATORY AUTHENTICATION STATEMENT

I certify that ALL-TEST ENVIRONMENTAL LABORATORIES meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846.

By:

Irving Berkowitz
Laboratory Manager

884140040

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

March 27, 1992

Mr. Joe Ritchey
Heritage Remediation/Engineering, Inc.
Toledo Division
5656 Opportunity Drive
Toledo, Ohio 43612

Re: Project No. 61012

Lab Project No. S-2924

Please note the following results for the One (1) Aqueous sample received on 3/20/92. All results are reported in mg/l except for pH.

Analysis ID	**Final Tank Effluent Water H-1**
BOD	57.25
COD	750.00
T.S.S.	12.00
pH	8.069

By: I. Berkowitz
Irving Berkowitz
Laboratory Manager

CERTIFIED BY NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, LAB. #02525

884140041

Att / JOE RITCHEY

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-8887

Method 608 (PCB's)

Project No. 61012
Laboratory Project No. S-2924
Client Name: Heritage Remediation

Matrix: Water
Date Received: 3/20/92
Date Analyzed 3/23/92

Sample Location	Final Tank Effluent H-1	MDL ug/l
PCB-1016	ND	0.50
PCB-1221	ND	0.50
PCB 1232	ND	0.50
PCB-1242	ND	0.50
PCB-1248	ND	0.50
PCB-1254	ND	0.50
PCB-1260	ND	0.50

By: I. Berkowitz
Irving Berkowitz
Laboratory Manager

MDL = Method Detection Limit
ND = Non Detected

884140042

D/S 4 TRUCK

At The END of DISCHARGE LINE

S-2925

HERITAGE

CHAIN OF CUSTODY RECORD

HERITAGE REMEDIATION/ENGINEERING, I

Toledo Division • 5656 Opportunity Drive • Toledo,

PROJ. NO.	PROJECT NAME	NO. OF CONTAINERS	VOC's	REMARKS
600	HEXCEL			

SAMPLERS: (Signature)
ESSAM E SALEH

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	VOC's	REMARKS
				X	END of DISCHARGE HOSE	2x40mL	X	STANDARD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
ESSAM E SALEH	3/23/92 1726				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

884140043

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Client Name: Heritage Rem/Eng. Date: March 27, 1992
Laboratory Project #: S-2925
Reference: Hexcel
Project No. 61012

LABORATORY AUTHENTICATION STATEMENT

I certify that ALL-TEST ENVIRONMENTAL LABORATORIES meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18, 40 CFR Part 136 for Water and Wastewater analyses and SW 846 for Solid Waste Analyses. I have personally examined and am familiar with the information contained in this report, and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate, complete, and meets the standards specified in N.J.A.C. 7:18, 40 CFR Part 136, and/or SW 846.

By: Irving Berkowitz

Irving Berkowitz
Laboratory Manager

CERTIFIED BY NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, LAB. #02525

884140044

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Volatile Organic Analysis Data

Case Id. Hexcel #61012 Matrix: Water
Sample No. S-2925 Discharge Hose Dilution Factor: 2:1
Client Name: Heritage Rem./Eng. Date Analyzed: 3/26/92

COMPOUND	UG/L	MDL
Chloromethane	ND	20
Vinyl Chloride	ND	20
Bromomethane	ND	20
Chloroethane	ND	20
Trichlorofluromethane	ND	10
1,1-Dichloroethene	ND	10
Methylene Chloride	30.2	10
Trans-1,2 Dichloroethene	ND	10
1,1 Dichloroethane	ND	10
Chloroform	ND	10
1,1,1-Trichloroethane	ND	10
Carbon Tetrachloride	ND	10
Benzene	ND	10
1,2-Dichloroethane	ND	10
Trichloroethene	22.7	10
1,2-Dichloroprapane	ND	10
Bromodichloromethane	ND	10
Trans-1,3-Dichloropropene	ND	10
Toluene	16.7	10
Cis-1,3-Dichloropropene	ND	10
1,1,2-Trichloroethane	ND	10
2-Chloroethyl Vinyl Ether	ND	10
Tetrachloroethene	232.6	10
Dibromochloromethane	ND	10
Chlorobenzene	460.2	10
Ethylbenzene	ND	10
m&o Xylenes	ND	20
p Xylene	ND	20
Bromoform	ND	10
1,1,2,2-Tetrachloroethane	ND	10

ALL-TEST ENVIRONMENTAL LABORATORIES, INC.
60 Railroad Avenue, Hasbrouck Heights, N.J. 07604
(201) 288-6511 FAX: (201) 288-6887

Volatile Organic Analysis Data

Case Id. Hexcel #61012
Sample No. S-2925 Discharge Hose
Client Name: Heritage Rem./Eng.

Matrix: Water
Dilution Factor: 2:1
Date Analyzed: 3/26/92

COMPOUND	UG/L	MDL
1,3-Dichlorobenzene	73.2	20
1,2-Dichlorobenzene	ND	20
1,4-Dichlorobenzene	ND	20

ND = None Detected
MDL = Method Detection Limit
BMDL = Below Method Detection Limit
** = Compound Found In Laboratory Blank

SURROGATE COMPOUNDS	RECOVERY	LIMITS
1,2-Dichloroethane-d4	120%	70-121
Toluene-d8	113%	81-117
4-Bromofluorobenzene	118%	74-121

By: I. Berkowitz
Irving Berkowitz
Laboratory Manager

APPENDIX C

HR/E WORK ORDER #48

SCOPE OF WORK
Work Order 48

The scope of services to be provided by HR/E includes furnishing of labor, equipment, materials, for providing general engineering services and engineering analysis. The following tasks have been identified:

- Engineering Services
- On-Site Services
- Monitoring Plans

1.0 Engineering Services

As with Work Order 44, HR/E will provide engineering services including contacts with governmental agencies, Fine Organics, and contractors in the support of on-going activities. These activities will include all time spent that is not directly in support of other work orders. Activities included are preparation of monthly progress reports for NJDEP, acquisition of samples for other investigations, and pursuing activities that do not merit separate work orders. All work would be conducted under the direction of A. William Nosil, Hexcel Corp. Environmental Engineering Manager.

2.0 On-Site Services

As with Work Order 44, HR/E would like to continue the administrative simplification resulting from on-site equipment. This equipment includes the HR/E office trailer, equipment trailer, and port-a-john. Our justification remains in that we have continued to average two or more persons on-site for approximately two weeks per month, and that the trailers and equipment are currently being utilized by treatment system operator. We anticipate to implement Work Orders 41.1 and 46.1 during this period.

3.0 Monitoring Plans

As per the December and March letters from the NJDEPE, we will prepare plans as described below. In general, the plans will provide procedures for Essam to conduct sampling and eventually data analysis.

3.1 DNAPL Monitoring Plan

We will prepare a Monitoring Plan for review by Hexcel regarding DNAPL measurements from selected wells. The plan will address which wells are to be selected for periodic measurements, who will collect the field data, how the data will be presented, and how frequently the data will be presented. Monitoring procedures and data quality objectives will be described. The plan will also address possible product recovery from wells with measurable product thicknesses.

3.2 LNAPL Monitoring Plan

We will prepare a Monitoring Plan for review by Hexcel regarding LNAPL measurements from selected wells. The plan will address which wells are to be selected for periodic measurements, who will collect the field data, how the data will be presented, and how frequently the data will be presented. Monitoring procedures and data quality objectives will be described. The plan will also address possible product recovery from wells with measurable product thicknesses.

3.3 Ground-Water Monitoring Plan

We will prepare a Monitoring Plan for review by Hexcel regarding ground-water measurements from selected wells. The plan will address which wells are to be selected for periodic measurements, who will collect the field data, how the data will be presented, and how frequently the data will be presented. Monitoring procedures and data quality objectives will be described. The plan will also specify objectives for use of the continuously monitoring water level data recorders.

APPENDIX D

HR/E WORK ORDER #46.1

TECHNICAL APPROACH TO THE SCOPE OF WORK

The scope of services to be provided by HR/E includes furnishing of all labor, items, materials, permits, tools, transportation, supplies, and equipment necessary for the satisfactory completion of the tasks described in this work order.

TASK 1 Soil Borings

Soil borings will be installed at locations as per NJDEP letter dated December 23, 1991 in response to Hexcel's Proposed Remedial Investigation Activities dated August 8, 1991 for soil delineation sampling, and as per the NJDEP letter dated March 5, 1992 and meeting on March 17, 1992. Table 1 summarizes sample locations and laboratory analysis for the soil delineation sampling.

The borings will be continuously sampled with a standard split-spoon sampler for geologic characterizations during hollow stem auger advancement. A photoionization detector (PID) will be utilized as a screening tool to assess potential vapor impacts at all bore hole locations. The soil samples will be placed in 8-ounce glass jars and preserved at approximately 4 degrees C.

The bore holes will be backfilled with cement and bentonite, and the last two feet will be sealed with cement according to NJDEP specifications. Soil cuttings will be drummed for waste characterization at a later date.

TASK 1.1 Laboratory Analysis

Soil samples will be submitted to All-Test Environmental Laboratories, Inc. under proper chain-of-custody procedures. The samples will be analyzed for parameters as summarized in Table 1 for volatile organic compounds with a forward library search (VO+15), total petroleum hydrocarbons (TPH), polychlorinated biphenyls (PCBs), and priority pollutants plus 40 (PP+40). Ground-water samples collected from MW-7 and MW-9 will be analyzed for VO+15 compounds.

TASK 2 Evaluation of MW-7 and MW-9

To evaluate the integrity of monitoring wells MW-7 and MW-9, HR/E will obtain ground-water samples from the wells after they have been purged of well casing water with a pneumatic purge/sample pump. Recovered water will be containerized in 55-gallon drums for on-site treatment. The ground water will be analyzed for VO+15. If the analytical results are about the same concentrations as previously reported, the two wells will be properly abandoned as per, or better than NJDEP requirements. If the analytical results are higher than previously reported, the two wells will be replaced with double cased monitoring wells constructed with stainless steel screens and galvanized steel risers.

TASK 3 Report Generation

Information derived from this work order will be compiled and presented to you following completion of all analytical testing in an update report. The report will address methods and procedures used during the scope of work to include a tabulation of analyses, well completion diagrams, and conclusions and recommendations.

TABLE 1
SOIL DELINEATION SAMPLING
(Hexcel Proposal 8-9-91)
(NJDEP Response 12-23-91)

LOCATION	SAMPLES	ANALYTICAL			
		VO+15	TPH	PCB	PP+40
113	0-6" above SWL	X			
	5.5 - 6'bgs		X		X
114	5.5 - 6'bgs	X	X		
613	0-6" above SWL + Duplicate	X X	X X	X X	
	~2'bgs	X	X	X	
1304	~2'bgs	X	X	X	
	0-6" above SWL	X	X	X	
	6" top of clay		X	X	
508	High PID (if >3440 ppm)	X			
507	High PID	X			
	6" top of clay + Duplicate	X X			
Field Blank	1 per day	X			
Trip Blank	1 per day	X			
TOTAL SAMPLES		14	9	7	1
Cost Per Analysis		$384	$72	$192	$1678

APPENDIX E

HR/E WORK ORDER #41.1

TECHNICAL APPROACH TO THE SCOPE OF WORK

The scope of services to be provided by HR/E includes furnishing of all labor, items, materials, permits, tools, transportation, supplies, and equipment necessary for the satisfactory completion of the tasks described in this work order.

TASK 1 Production Well Evaluation

To comply with NJDEP's July 12, 1991 and March 5, 1992 letters, a packer test will be performed. To evaluate the extent of hydraulic connection between the two units, two subtasks are proposed; (1) completion of the packer tests with some modifications, and (2) performance of a 24-hour pumping test of the production well.

TASK 1.1 Packer Test

A packer tests will be performed to obtain water samples from the facility's 12-inch diameter production well (PW-1) at various depths. We propose utilization of inflatable packers to isolate productive zones within the open bore hole of the well. According to the geophysical logs, it appears these productive zones occur at 60-68 feet, 122-130 feet and 198-208 feet. An additional packer sample will be obtained from the base of the outer steel casing of the well at a depth of 34-44 feet to assess the possibility of conduit flow around the outer casing.

Static water level and typical pumping water level will be assessed during the packer testing and sampling. During the one-hour of purging/pumping of each zone, changes in water levels will be measured in surrounding lower overburden aquifer wells (PI-1, MW-13, and MW-15) for distance-drawdown measurements as a means to assess hydraulic connection between the aquifers.

Water samples will be collected from each of four discrete zones as opposed to three zones previously proposed. A bottom-filling stainless steel bailer will be utilized to retrieve a water sample from the bottom of the production well (250 feet). In addition, a field and trip blank will be obtained for Quality Assurance/Quality Control. Water samples will be analyzed for VO+15 using

Method 624. The cost estimate has been based on three days work. Should the test become extended beyond the estimated three days, there will be additional charges. Daily progress reports will be submitted to Hexcel presenting current status.

TASK 1.2 Production Well Pumping Test

A 24-hour aquifer pumping test will be performed on Fine Organic's production well to assess pumping impacts on the lower unconsolidated aquifer. Potential changes in water levels will be measured in the site's lower overburden wells. Water will be discharged through Fine Organic's cooling water system and into the POTW.

TASK 2 Well Installation and Sampling

TASK 2.1 Additional Required Monitoring Wells

HR/E will install two monitoring wells as per NJDEP's July 12, 1991 letter and March 5, 1992 letter. These wells (designated as MW-32 and MW-33) will be installed along the east fence behind Vincenzo's Restaurant. These wells (originally called MW-35 and MW-37) will consist of 4-inch diameter PVC material, and will be installed to the top of the clay layer (approximately 12 feet in depth) with eight feet of 0.010-inch slotted screen to intersect above the water table by two feet. This specification was required for MW-21 which was installed previously. Table 1 summarizes well construction.

Also, MW-34 (originally called MW-36) will be installed at 232 Main Street in front of Partner's Deli to fulfill requirements of the March 5, 1992 letter. This well was originally specified to be installed in front of Vincenzo's Restaurant, but was moved for accessibility reasons. This well will be installed as per the specifications for MW-20. A well cluster (two wells) will be installed if the clay layer is encountered in the bore hole, with a shallow well set above the clay layer in the upper overburden aquifer and a deeper well installed in the lower

overburden aquifer. If the clay layer is not encountered, a single well will be installed approximately 20 feet in depth with five feet of screen.

The bore holes will be continuously sampled with a standard split-spoon sampler for geologic characterizations during hollow stem auger advancement. Also a photoionization detector (PID) will be utilized as a screening tool to assess potential vapor impacts at both bore hole locations.

A truck-mounted drill rig, or equivalent, will be used to install the monitoring wells. A sand filter pack will surround the screen with a bentonite seal on top of the sand, while the remainder of the annulus will be backfilled with a cement/bentonite slurry. All of the proposed monitoring wells will be finished at the surface with above ground protective outer casings.

TASK 2.2 Analytical

Two soil samples (sample exhibiting the highest PID reading and bottom soil core sample) from each soil boring will be sent to the laboratory for chemical analysis. Samples will be analyzed for priority pollutants +40 peaks (PP+40) and total petroleum hydrocarbons (TPH).

Ground-water samples will be retrieved from monitoring wells MW-34, MW-35 and MW-36, and from control wells CW-1, CW-2 and Cw-10 after purging three to five well casings of water. Samples will be analyzed for volatile organic compounds (VOC + 15).

TASK 3 Evaluation of MW-27

As per the March 5, 1992 NJDEPE letter and March 17, 1992 meeting, HR/E proposes to conduct a pumping test of MW-27. Approximately 500 gallons of water will be removed from this well and placed into 55-gallon drums for later on-site treatment.

Possible product thicknesses will be evaluated during the test in the drums and in MW-27. A pneumatic displacement pump will be utilized for the pumping test.

TASK 4 Site Survey

Recently installed wells and previously inaccessible wells will be added in the site survey according to the New Jersey Plane Coordinate System. This task will be performed by a New Jersey licensed professional land surveyor familiar with the site (Albert N. Faraldi Group, Secaucus, New Jersey). In addition, aerial photographs were obtained for Lodi, New Jersey from the following years; 1947, 1957, 1959, 1966, 1969, and 1982. These photographs were enlarged showing the Fine Organic's location.

TASK 5 Report Generation

Information derived from this study will be compiled and presented to you following completion of all analytical testing in an update report. The report will address methods and procedures used during the scope of work to include a tabulation of analyses, well completion diagrams, aquifer testing results, and conclusions and recommendations.

TABLE 1
SUMMARY OF WELL CONSTRUCTION

Well No.	Materials	Depth
MW-32 (35)	4" PVC, 8' screen 6" procover over stick-up	12'
MW-33 (37)	4" PVC, 8' screen 6" procover over stick-up	12'
MW-34 (36)	4" PVC, 8' screen 12" flush cover	top of clay, or 20' if no clay with 5' screen
MW-35[1]	4" PVC, 5' screen, 12" flush cover, double cased with 12" steel casing	20'

[1] MW-35 to be installed into the lower overburden aquifer if clay is encountered at MW-34 location